Work	Ord	or ID	62745
VVUIER	171711	er 11,	DZ /4:

Thursday, October 07, 2010 1:27:33 PM



Page 1

Atem ID: D206-667-203 Accept Setup Start **Revision ID:** Stop Item Name: Crosstube Aft Start Oty: 1.00 **Start Date:** 10/7/2010 Cust Item ID: 7 **Required Date: 10/27/2010** Req'd Qtý: 1.00 **Customer:** Reference: Start Run -Date: 6-10-Tooling: Approvals: Date: Stop Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Reject Tool # Plan Accept Reject Insp. Work Center ID Description Qty **Run Hours** Code Qty Number Stamp **Draw Nbr Revision Nbr** D206-667-243 Rev C 100 0.00 DOCUMENT CONTROL DC 0.00 Memo Document Control Photocopy bluefile and create labels as per PPP D206-667-203 CHG003 110 0.00 BENDING MACHINE - CROSSTUBES 10-11-8 CNC Bend 2 0.00 Memo CNC Alpha 160 Bender Bend tube as per Dwg D206-667-243 using CNC bender program 206L-AF 120 QC15- Crosstube Dimensional Check

QC

Memo

Quality Control

"

Dari Aerospace Lio	space Ltd	Aeros	Dart
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W/O:		WORK ORDER CHANGES									
DATE	STEP	PRO	DCEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
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Part No	:	PAR #:	Fault Cat	tegory:	_ NCR: Yes	No DQ	A:	Date: _			
	Resolution:			Disposition: Q			QA: N/C Closed: Da				
NCR:			WORK ORI	DER NON-CONFORMA	ANCE (NC	R)					
DATE	STEP	Description of NC			ion B	Verifi	cation	Approval	Approval		
DAIL	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Dat	& Sect	ion C	Chief Eng	QC Inspector		
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Page 2

Item ID:

D206-667-203

Accept

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Setup Start

Stop



Revision ID:

Item Name: Crosstube Aft

Start Date:

10/7/2010

Start Qty: 1.00 Req'd Oty: 1.00

Required Date: 10/27/2010

Cust Item ID:

Customer:

Tool ID

Reference:

A	nr	ra	va.	s:

Process Plan: Date:

Date:

Tooling:

Date:

Date:

Tool # Plan

Code

Run Start

Accept

Qty



Stop

Reject

Oty

Insp.

Stamp

Reject

Number

Sequence ID/ Work Center ID

130



Crosstubes

Crosstubes

Operation **Description** Set Up/ **Run Hours**

SPC (Y/N):

0.00

Crosstubes

Memo

0.00

1-Drill pilot holes in tube using drill Jig DT8583 & DT8584 as per Dwg D206-667-243 and drill table DT8577. Locate hole #6 for towers as per QSI 10. Drill all (3) top holes.

2-Drill and Ream all holes in tube to finish size using drill Jig DT8583 & DT8584 as per Dwg D206-667-243 Check dimensions between holes on all four

3-Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins.

4-Drill pilot holes using drill Jig DT8583 & DT8584 as per Dwg D206-667-243. Drill only the top (2) holes.

5-Drill & ream the top (2) holes to finish size using drill Jig DT8583 & DT8584 as per Dwg D206-667-243

6-Drill Fwd rivet holes using drill Jig DT8789FWD as per Dwg D206-667-143. Note: Fwd side has 3x top holes.

7-Drill Aft rivet holes using drill Jig DT8789 as per Dwg D206-667-243.

8-C'sink holes as per Dwg D206-667-243.

9 -Scribe part # and batch # using vibrating stylus as per Dwg D206-667-243 Inside of Cuff(Donot engrave on outside of tube)

10 -Deburr & Inspect for surface damage. Repair damage within limits as per

EL 10-11-10,

SAY) 10

W/O:			WC	RK ORDER CHANG	ES				*
DATE	STEP	PRO	PROCEDURE CHANGE		By Date Qty		Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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NCR:	-		WORK ORDI	R NON-CONFORMA	NCE (NCR)			
DATE	STEP	Description of NC		Corrective Action Secti		Verific	ation	Approval	Approval
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'Item ID:	D206-667-20)3
Revision ID:		
Item Name:	Crosstube Aft	
Start Date:	10/7/2010	Start Qty: 1.00
Required Date	e: 10/27/2010	Req'd Qty: 1.00
Reference:		
Approvals:	Process Pla	n:

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Page 3

Cust Item ID: Customer:

Tool ID

Setup Start

Tooling:

Accept

Date:

Tool # Plan

Code

Run

Start

Stop

Stop

QC:

Operation

Description

Date:

SPC (Y/N):

Set Up/

Run Hours

Date:

Qty

Reject Accept Qty

Reject Number

Insp. Stamp

140

HandFXtube

Sequence ID/

Work Center ID

Hand Finishing Crosstubes

Crosstubes Chemical Conversion

Memo

Dwg D206-667-243

0.00

0.00

150

Quality Control

QC3- Inspect Part Finish

Memo

Memo

Sistula

160

QC5- Inspect part completeness to step on W/O

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Quality Control

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N/O:			WC	RK ORDER CHANGE	S				
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Work Order ID 62745

Thursday, October 07, 2010 1:27:33 PM



Page 4

Item ID:

D206-667-203

Accept

Setup Start



Revision ID:

Start Date:

Item Name:

Crosstube Aft

10/7/2010

Start Qty: 1.00

Req'd Qty: 1.00 **Required Date:** 10/27/2010



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan: ____ Date:

Operation

Description

Date: _____

Tooling:

SPC (Y/N):

0.00

0.00

Set Up/

Run Hours

Date:

Tool ID

Tool # Plan

Date:

Code

Accept Qty

Reject Reject **Oty**

170

Sequence ID/

Work Center ID

Outsource process - NDT

Outsource2

Liquid Penetrant Inspection as per QSI 038Or Issue P/O: 129/2

LPI as per ASTM 1417

Outsource process - NDT per QSI038 4.1

Memo

Level 2 Attach copy of NDT results to work order

180

Packaging

Packaging

Memo

0.00

0.00

Packaging

Ensure copy of NDT results attached to work order.

190

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

Ensure results are as per Dwg D206-667-243

Run

Start

Stop

Stop

Insp. Number Stamp

CZ 10/11/12 0

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met 10 11 150

W/O:			WO	RK ORDER CHAN	IGES					*			
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Part No		PAR #:											
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NCR:			WORK ORDE	R NON-CONFOR	MANCE (N	CR)							
DATE	STEP	Description of NC			Section B		Verifica	tion	Approval	Approval			
DATE	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng		gn & ate	Section		Chief Eng	QC Inspector			

Work Order ID 62745

Thursday, October 07, 2010 1:27:33 PM



Page 5

· Item ID:

D206-667-203

Accept



Setup Start

Run



Stop

Revision ID:

Item Name:

Crosstube Aft

Start Date: 10/7/2010

Start Qty: 1.00

Required Date: 10/27/2010

Req'd Qty: 1.00



Cust Item ID: Customer:

Tool ID

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Start Stop



Date:

SPC (Y/N):

Set Up/

Run Hours

Date:

Tool # Plan

Code

Accept Qty

Reject Reject **Qty**

Insp. Number Stamp

Sequence ID/ Work Center ID

200

SprayPaint **Spray Painting** SprayPaint

Operation

Description

0.00

0.00

1-Prime inside and outside crosstube as per QSI 005 4.2

2-Paint outside crosstube with White Imron as per OSI 005 4.2

PRIME:

Memo

Start Time: \$:00 Fininsh Time: 9:00

PAINT:

Start Time: 1:30 Finish Time: 233

210

QC14- Inspect Spray Paint

0.00



Quality Control

Memo

0.00

Wrap in plastic bag to protect from scratches

IT 10-11-17

V/O:	·		WC	ORK ORDER CHANGES	3				
DATE	STEP			NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspector
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NCR:			WORK ORD	ER NON-CONFORMAN	ICE (NCI	7)			
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Page 6

'Item ID: Revision ID:	D206-667-20	D206-667-203			Accept						Setup S	start	rt	
Item Name: Start Date: Required Date: Reference:	Crosstube Aft 10/7/2010 10/27/2010	Start Qty Req'd Qty					Cust Item Customer				S	Stop		
Approvals:	Process Pla						I	Date:		F		Start Stop		
	QC:			Date: _		SPC (Y/N):	I	Date:				жор		
Sequence ID/ Work Center II)	Operation Descriptio				Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rejec Qty		Reject Number	Insp. Stamp
Crosstubes		Crosstubes	Memo			0.00				_m/		<u>)</u>	11	_22
Crosstubes				lates as per	Dwg D206-60									
230		Skidtubes				0.00				\mathbb{A}^{M}) 1		1 1	0.4
Crosstubes		Ŋ	Memo			0.00				114	_10		_ -	20
Crosstubes		· (015. Let cure to noles should b	for 12h afte e facing un	er installation a	nick layer of magnobond and prior to packaging. I	d 6398 per QSI Note: (3) top							

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W/O:		WORK ORDER CHANGES												
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Work Ord Thursday, Octob											Page 7
Item ID: Revision ID:	D206-667-2	03		Accept					Setup Sta	1 10001101 1	
Item Name: Start Date: Required Date: Reference:	Crosstube Aft 10/7/2010 10/27/2010	Start Qty: 1.00 Req'd Qty: 1.00	(88/8) UU UU 140/8 UU UU		Cust Item I Customer:	D:			Sto		
Approvals:		an:	Date:	Tooling: SPC (Y/N):		nte:		I	Run Sta Sto		
Sequence ID/ Work Center II	D	Operation Description	1	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
QC Quality Control		QC5- Inspect part comp	eteness to step on W/O	0.00	14/23			<u></u>	-	-	
250 		Pick Kit Memo		0.00				101	11/23	. <i>[</i>])

260

Packaging

Quality Control

QC4- 100% Inspect kits for completeness

Memo

PS/10/00 2000

W/O:		WORK ORDER CHANGES													
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Work Order ID 62745

Thursday, October 07, 2010 1:27:33 PM



Page 8

Item ID:

D206-667-203

Accept

Setup Start

Stop



Revision ID: Item Name: **Start Date:**

Crosstube Aft

10/7/2010

Start Qty: 1.00

Required Date: 10/27/2010

Req'd Qty: 1.00



Cust Item ID:

Customer:

Tool ID

Reference:

Approvals:

Process Plan: Date:

Date:_____

Tooling:

0.00

SPC (Y/N):

Set Up/

Run Hours

Date:

Date:

Tool # Plan

Code

Run Start

Accept

Qty



Stop

Sequence ID/ **Work Center ID**

270

Packaging

Packaging

Operation

Description

Packaging

Memo

0.00

Identify and pack for shipping as per PPP D206-667-203

Location: PPP Rev:

280

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

Qty

Reject

Reject Insp. Number

Stamp

W/O:	- "	WORK ORDER CHANGES												
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DATE	STEP	Section A	Initial Chief Eng	Action De Chief	scription ^{Eng}	Sign & Date	Secti		Chief Eng	QC Inspector				
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Picklist Print

Thursday, October 07, 2010 1:27:38 PM

Work Order ID: 62745

Parent Item:

D206-667-203

Parent Item Name: Crosstube Aft



Start Date: 10/7/2010

Start Qty: 1.00

Required Date: 10/27/2010

Required Oty: 1.00

Comments:

IPP Rev:F□05.09.01□Add holes for compatibility with Bell Skidtubes□KJ/JLM

IPP Rev:G 08-06-03 update as per DSI9415 (ECN1198) DD verified by:ec

IPP Rev:H 08-07-18 remove thread masking in step 12 DD verified by:EC

IPP Rev:I 08-12-15 add magnobond DD verified by:EC IPP Rev J

09.01.06 ECN 08-562

EC verified by:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D206-667-203TRN	III ITAI MARTI IIAN BARAN AINA	Manufactured	No			220	Each	2.0000	1 	1 EZ	10-1	11-8	
•				Location	1	Loc	<u>Oty</u>	Loc Code					
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D2873-043		Manufactured	No			220	Each	16.0000	2	2	m	10 - 1	1.22
•	B# 623	380		<u>Location</u> ST	60981	<u>Loc</u>	<u>Oty</u> 16 16	Loc Code	_				
D2873-045	HI 1111 BII 118	Manufactured	No		00981	220	Each	14.0000	2	2	m	10 · 11	٠ 22
·	th	_		<u>Location</u> LG	1	Loc	<u>Oty</u> 14	Loc Code					

60982 14 Page 1

W/O:		WORK ORDER CHANGES										
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Resolution:			Disposition	n:	QA: N/C (Closed: _		Date: _				
NCR:			WORK ORDI	ER NON-CONFORM	IANCE (NC	R)						
DATE	STEP	Description of NC			ction B		ication		Approval			
		Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date		tion C	Chief Eng	QC Inspector			

Thursday, October 07, 2010 1:27:38 PM

Work Order ID: 62745 Parent Item: D206-667-203 Parent Item Name: Crosstube Aft **Required Date: 10/27/2010 Start Date: 10/7/2010** Start Qty: 1.00 Required Qty: 1.00 D2892-1 Manufactured 230 32.0000 No Each 2 Support Location Loc Qty Loc Code LG 32 41986 12 42785 20 D3595-063-450 Manufactured No 230 Each 121.6590 **RUBBER CUSHION** Location Loc Oty Loc Code LG 121.6589737 5.97897368 53775 58161 3.56 10.12 59580 72 61465 30 62535 MS20601-AD4W10 No 230 Each 32.0000 Purchased 14 14 RIVET Location Loc Qty Loc Code LG051 18 2 114245 B#11588 1 115405 16 ST322 14 113220 14

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Thursday, October 07, 2010 1:27:38 PM

Work Order ID: 62745

Parent Item:

D206-667-203

Parent Item Name: Crosstube Aft



Start Date: 10/7/2010

Required Date: 10/27/2010

Start Qty: 1.00

Required Qty: 1.00

MS21920-22

Clamp(per MIL-DTL-8783C)

Purchased

Each

62.0000

Loc Code

AN5-10A

Purchased

No

No

Location

LG

114077

250

230

62 Each

62

Loc Oty

305.0000

Location	Loc Q	<u>ty</u>	Loc Code
ST337	3	105	
115108		18	
115429		50	
115589	1	.00	
115700	1	37	
	250	Each	300.0000

AN5-32A

Purchased

No

Location	Loc Qty	Loc Code	
ST340	300		
114056	40		
114405	50		4
115016	50		
115108	50		
115589	60		
115698	50		

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W/O:			WO	RK ORDER CHANGE	S				<u> </u>
DATE	STEP	PRO	OCEDURE CHAN	IGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Picklist Print Thursday, October 07, 2010 1:27:38 F	PM								Page 4
Work Order ID: 62745 Parent Item: D206-667-203 Parent Item Name: Crosstube Aft			18 18 18 18 18 18 18 18 18 18 18 18 18 1				tart Date: Start Qty:		Required Date: 10/27/2010 Required Qty: 1.00
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AN960JD516 NAS1149D0563J	Purchased	No		250	Each	34.0000	18	18 _MIU	742 10/1/35/
			Location ST 103694 107534 109287		34 18 12 4	Loc Code			- - - - /)
MS21042L5	Purchased	No		250	Each	895.0000	4	10/	11/235/
			Location ST139 114813 ST300	<u>Lo</u>	26 26 869	Loc Code			

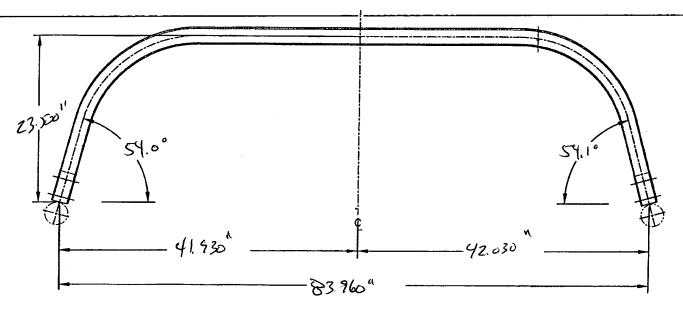
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N/O:			WORK ORDER	WORK ORDER CHANGES						
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Part No	:	PAR #:	Fault Category:	NCR: Ye	es No DQ	A:	Date: _			
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NCR:		A	WORK ORDER NON-CON	FORMANCE (N	CR)	1., **1				

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DART AEROSPACE LTD	Work Order:	62145
Description: Crosstube High Aft (206L)	Part Number:	D206-667-203
Inspection Dwg: D206-667-243 Rev: C		Page 1 of 1

Required Dimension	Min	Max
Height	23.39	23.65
1/2 Span	41.79	42.05
Angle	54	56
Total Span	83.58	84.1



		Comments	
		-	
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	QC15 Inspection	18	

Rev	Date	Change	Revised by	Approved
Α	07.02.06	New Issue	KJ/JM	
В	09.11.17	Dwg Rev updated	KJ /A	
С	09.12.14	Dimensions update per Dwg Rev C	KJ 🕏	111
				-

41.930 41.030 3.960

Date

Dart Ae	rospace L	.td							
W/O:			W	ORK ORDER CHANG	ES				
DATE STEP		PRO	OCEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No	•	PAR #:	Fault Cate	gory:	_ NCR: Yes	No DQ	A:	Date: _	
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5.477		Description of NC	Corrective Action Section		Verificatio		ration	n Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date	& Sect	ion C	Chief Eng	QC Inspector

Item	Qty -243	Part Number	Description
1	Х	D206-667-243	CROSSTUBE ASSEMBLY (206L HIGH AFT)
2	1	D6004-115	CROSSTUBE
3	2	D2873-043	NUT PLATE
4	2	D2873-045	NUT PLATE
5	2	D2892-1	SUPPORT
6	4	D3595-063-450	RUBBER CUSHION
7	4	MS21920-22	CLAMP
8	14	MS20601AD4W10	RIVET (OR NAS9302B-4-10)
9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHE SIVE (TEXTRON/BELL SPEC. 299- 947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

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- 1) MATERIAL: MANUFACTURED FROM D6004-115
 - FINISHED LENGTH = 104.91±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2 PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-243" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 21.9 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2892-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-22 CLAMPS WITH D3595-063-450 RUBBER CUSHIONS TO SECURE THE D2892-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

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С	REORG TO CUR D3595-0 REMOV RELOCA	ANIZED VIEWS RENT STANDA 163-450 WAS DE ED REF. & ADD ATED FLAG #6	TES/PART LIST (ZN D7-1); AND REFORMATTED DRAWING RDS. 2856-400-773 (ZN D6-2 & A5-2); DTOLERANCES (ZN 4-3, C5-3, D3-3); (ZN A8-3) PER NCR 210; MOVED PDATED TOLERANCE TO SHEET 4.	RF	08.11.06		
	TORONIN	O DE TAIL & UP	DATED TOLERANCE TO SHEET 4.		J		
В		DLES AND NUT HT/AA SKUDTU	PLATES FOR COMPATABILITY IBES	PH	05.07.26		
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REV.	DESCRIPTION			BY	DATE		
DESIGN	DART AEROSPACE LTD			LTD			
DRAWN		RF ₂	HAWKESBURY, ONTARI				
CHECK	D	a	DRAWING NO.		REV. C		
MFG. AF	PPR.	E	D206-667-243 SHEET 1 OF				
APPRO	VED	111	TITLE		SCALE		
DE APP	R.	-#	CROSSTUBE ASS'Y (206L F	HIGH A	AFT) NTS		
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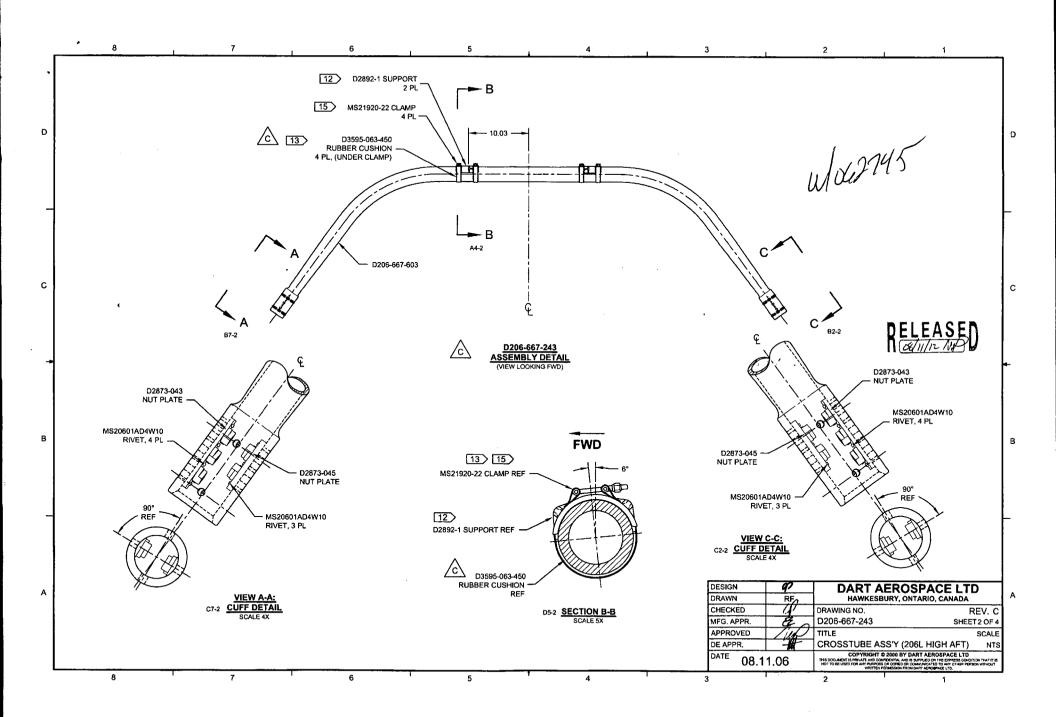
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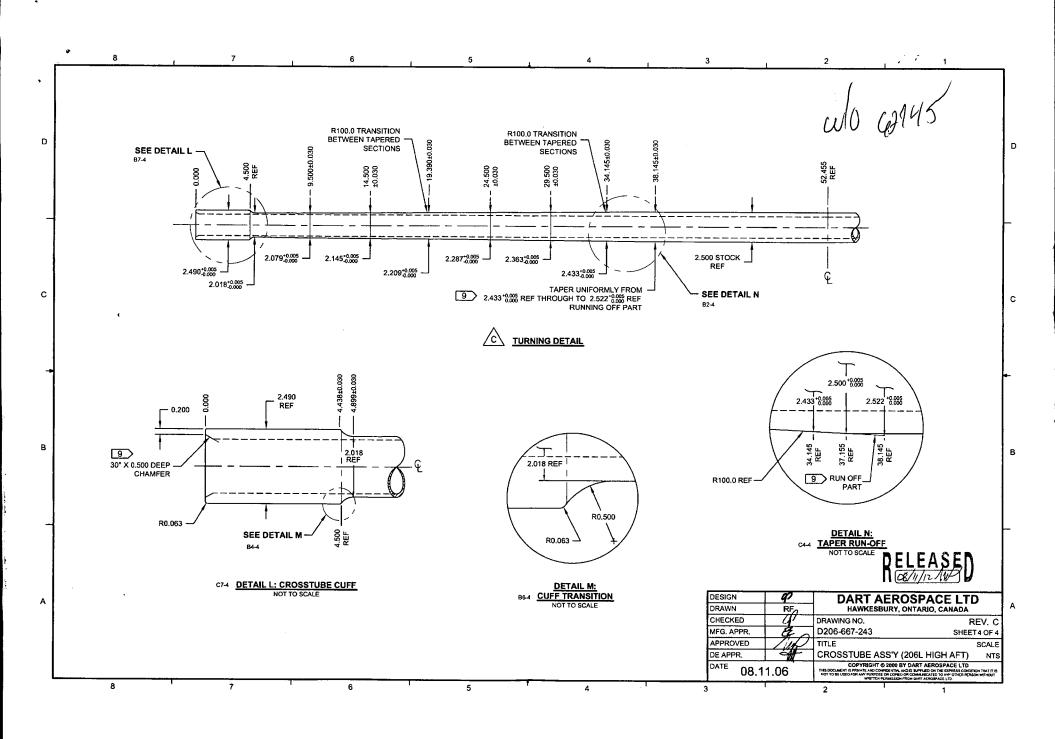
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24.68 REF. (627mm) PILOT Ø0.128 TO CENTER OF BEND. PILOT Ø0.128 C'SINK Ø0.225X100° C'SINK Ø0.225X100° ALONG TOP EDGE 3 PL D D - 15.16 REF. (385mm) TO START OF BEND R19 0+1 0 19.39 REF 23.52±0.13 25.00±0.13 (493mm) Ø0.323^{+0.005} _ HOLE TO BE ALIGNED WITHIN ±0.001 OF HOLE ON OTHER SIDE OF CUFF Ø0.323^{+0.005} HOLE TO BE ALIGNED 41.92±0.13 DETAIL D WITHIN ±0.001 OF HOLE DETAIL H ON OTHER SIDE OF CUFF D8-3 D1-3 43.00±0.13 -C6-3 DETAIL D DETAIL H SCALE 4X SCALE 4X 86,00±0.25 (VIEW LOOKING FWD) (VIEW LOOKING FWD) D206-667-603 BENDING AND DRILLING DETAIL (VIEW LOOKING FWD) Ø0.323^{+0.005} HOLE TO BE ALIGNED WITHIN ±0.001 OF HOLE Ø0.323^{+0.005}
. HOLE TO BE ALIGNED WITHIN ±0.001
OF HOLE ON OTHER SIDE OF CUFF ON OTHER SIDE OF CUFF 2.500±0.005 PILOT Ø0.128 PILOT Ø0.128 В C'SINK Ø0.225X100° C'SINK Ø0.225X100° B3-3 Ø0.323^{+0.005} -HOLE TO BE ALIGNED WITHIN ±0.001 OF HOLE 2,500±0.005 ON OTHER SIDE OF CUFF ₹500 B6-3 Ø0.323^{+0.005} HOLE TO BE ALIGNED B7-3 VIEW F-F
(VIEW LOOKING AFT, ROTATED) 0.780 0.500 D1-3 VIEW K-K: B2-3 VIEW J-J (VIEW LOOKING AFT, ROTATED) WITHIN ±0.001 OF HOLE CUFF DETAIL ON OTHER SIDE OF CUFF SCALE 4X DESIGN DART AEROSPACE LTD DRAWN HAWKESBURY, ONTARIO, CANADA VIEW E-E: Ø2.500 **CUFF DETAIL** CHECKED DRAWING NO. REV. C REF SCALE 4X MFG. APPR. D206-667-243 SHEET3 OF 4 APPROVED SECTION G-G TITLE DE APPR. CROSSTUBE ASS'Y (206L HIGH AFT) SCALE 5X COPYRIGHT © 2000 BY DART AEROSPACE LTD DATE 08.11.06 8 3

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DATE	STEP	PRO	OCEDURE CHAI	IGE	Ву	D	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
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]		Market Inc., Am., .						
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LIQUID PENETRANT TEST REPORT

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CLIENT	Dage A	ERO STACE		DATE	Nov. 12.2010	TIME AM PM D
CLIENT ATTENTION	1, 1	A LACELLE		ACUREN JOB NO.	188-10-	- 000
ATTENTION _ ADDRESS ,	1270 AB			PO/WO No.	12712 -	0
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-	771700			ACCEPTANCE STD		REV./DATE 2007
PROJECT		FPIL	0 0 0	CEOSS	TUBES!	
ITEM(S) EXAMINED		0	5 (LQ)	75.		
			_			
JOB DESCRIPTIO	N	PROCEDURE NO. LT-O	REV./DATE	2008	TECHNIQUE NO. LT-TGGH	REV./DATE 7-08
PART NO. CF	2055 T.B			MATERIAL FLUD	WE ALUMINUM TH	ICKNESS
SCOPE (1) E	7 FL	oules (ENT	41 Qu	^ f		SPECTION
		OUT ON 100	00	TENNAL	0.00	
TEST DETAILS						
METHOD	₫ FLUOF	RESCENT U	VISIBLE	☑ WATER WASH	□ SOLVENT REM	
	14CNA FLO		10/01-00	BLACK LIGHT S/N	16459 OUTPUT > 1000	0 μ W/cm ² □ AMBIENT < 2 fc HT □ OUTPUT>100 fc @ SURFACE
PENETRANT PENETRANT REMOVE	2L67 R H20	MINIMUM DWELL TIME MINIMUM DRY TIME	10 45 Min.	LIGHTING EQUIP. OTHER	LI FLASHLIGHT LI TROUBLELIGH	TOUTPUTZIOUICE SURFACE
DEVELOPER	SKO 52	MINIMUM DWELL TIME	10 Min.	LIGHT METER S/N	1098866	CAL DUE DATE
DEVELOPER TYPE	Non Aqu	EOUS 🖸 AQUEOUS	□ DRY			007-19-2011
TEST SURFACE	I Ac Crou	ND AS WE	IDED	MACHINED	☐ SHOT BLASTED	CLEAN BARE METAL
SURFACE CONDITION SURFACE TEMPERAT			20°F TO 10°C/50°I		☐ 10°C/50°F TO 52°C/125	
RESULTS-	(METRIC	☐ IMPERIAL)				· ·
~		0. 62923 0. 62924				
1 (8)	MBE:U).0.62746				
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that all descriptions, commer representations or warrantie data or other information pro Standard of Care In performing the services pr	nts and expressions of opi s. Acuren Group Inc. is n ovided by Acuren Group I rovided, Acuren Group Inc	nion reflect the opinions or observation of assuming any responsibilities of the nc. In no event shall Acuren Group II	ons of Acuren Group Inc. le woner/operator and the le ac,'s liability in respect of l	used on information and a owner/operator retains con the services referred to her	ssumptions supplied by the ownerroperator uplete responsibility for the engineering, ma ein exceed the amount paid for such service:	of the requested services. It is expressly understood and are not intended nor can they be construed as infacture, repair and use decisions as a result of the s. milar locality. No other warranty, expressed or
implied, is made or intended SIGNATURES	of neural chonp me.		· Andrews in the second of the second			
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_		PRINT		SIGNATURE	REPORT	
TECHNICIAN (SIGNAT	(URE):		<u> </u>		REVIEWED BY:	
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